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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANTS : BERND LUHMANN ET AL.
SERIAL NO. : Divisional of Serial No. 08/976,802
FILED : Herewith
FOR : ADHESIVE TAPE
ART UNIT : To be assigned
EXAMINER : To be assigned

November 16 , 2001

Hon. Commissioner of Patents
Washington, D.C. 20231

PRELIMINARY AMENDMENT

SIR:

Prior to examination, please amend the above-identified application as follows:

IN THE SPECIFICATION:

Insert as the first paragraph of the specification the following new paragraph: -- This application is a division of U.S. Serial No. 08/976,802, filed on November 24, 1997, now allowed. --

IN THE CLAIMS:

Cancel all of the claims in the application and substitute:

--12. An adhesive tape which can be bonded to a substrate and thereafter released from the substrate without leaving a residue or damaging the substrate by pulling on the adhesive tape, said adhesive tape comprising:

- a) a backing comprising a foam material, said backing having a thickness of 200-600 μm , and exhibiting a modulus of elasticity of less than 16 MPa; and
- b) self-adhesive composition on one or both sides of said backing, said self-adhesive composition exhibiting a ratio of tear strength to stripping force (peel force) of greater than 1.2:1 at a peel angle of less than 10° from the surface of a bond formed between said adhesive tape and said substrate. --

--13. The adhesive tape according to claim 12, wherein the foam backing is coated on both sides with self-adhesive composition.--

- 14. The adhesive tape according to claim 12, wherein the self-adhesive composition is based on block copolymers.--
- 15. The adhesive tape according to claim 14, wherein the block copolymers comprise polymer blocks of vinylaromatic compounds.--
- 16. The adhesive tape according to claim 15, wherein the block copolymers further comprise polymer blocks formed by polymerization of 1,3-dienes.--
- 17. The adhesive tape according to claim 12, wherein the self-adhesive composition comprises tackifiers, and optionally further blend components and/or additives.--
- 18. The adhesive tape according to claim 12, wherein the foam backing has a modulus of elasticity of 4-15 MPa.--
- 19. The adhesive tape according to claim 12, wherein the foam backing has a thickness of 300-550 μm .--
- 20. The adhesive tape according to claim 12, which is in the form of sections,

wherein one end of each section comprises a non-tacky grip, and an opposite end of each section optionally comprises an adhesive area which decreases in size towards an end of the section.--

--21. The adhesive tape according to claim 20, wherein the non-tacky grip is formed by laminating film section on the self-adhesive composition, wherein the sides of the film sections which contact the self-adhesive composition have been given an anti-adhesive finish.--

--22. A method for bonding an adhesive tape to a substrate and optionally thereafter releasing the adhesive tape from said substrate without leaving an adhesive residue on said substrate, said method comprising the following steps:

- a) applying an adhesive tape according to claim 12 to a substrate so as to form a bond between said adhesive tape and said substrate; and
- b) optionally releasing said bond by pulling on the adhesive tape. --

--23. The method according to claim 22, which further comprises bonding the adhesive tape to a hook, a baseplate or an article to be suspended from said substrate, wherein said bonding of the adhesive tape to said hook, baseplate or article is carried out either before or after the adhesive tape is bonded to said substrate.--

--24. An adhesive tape which can be bonded to a substrate and thereafter released from the substrate without leaving a residue or damaging the substrate by pulling on the adhesive tape, said adhesive tape comprising:

- a) a backing comprising a foam material, said backing having a thickness of 200-600 μm , and exhibiting a modulus of elasticity of less than 16 MPa; and
- b) self-adhesive composition on one or both sides of said backing, said self-adhesive composition exhibiting a ratio of tear strength to stripping force (peel force) of greater than 1.2:1 at a peel angle of less than 10° from the surface of a bond formed between said adhesive tape and said substrate;

whereby the backing is selected such that the backing would tear if pulled in the absence of said self-adhesive composition with the same stripping force necessary to remove said adhesive tape from said substrate, but the backing does not tear when said adhesive tape is removed from said substrate. --

--25. The adhesive tape according to claim 24, wherein the foam backing is coated on both sides with self-adhesive composition.--

--26. The adhesive tape according to claim 24, wherein the self-adhesive composition is based on block copolymers.--

--27. The adhesive tape according to claim 26, wherein the block copolymers comprise polymer blocks of vinylaromatic compounds.--

--28. The adhesive tape according to claim 27, wherein the block copolymers further comprise polymer blocks formed by polymerization of 1,3-dienes.--

--29. The adhesive tape according to claim 24, wherein the self-adhesive composition comprises tackifiers, and optionally further blend components and/or additives.--

--30. The adhesive tape according to claim 24, wherein the foam backing has a modulus of elasticity of 4-15 MPa.--

--31. The adhesive tape according to claim 24, wherein the foam backing has a thickness of 300-550 μm .--

--32. The adhesive tape according to claim 24, which is in the form of sections, wherein one end of each section comprises a non-tacky grip, and an opposite end of each section optionally comprises an adhesive area which decreases in size towards an end of the section.--

--33. The adhesive tape according to claim 32, wherein the non-tacky grip is formed by laminating film section on the self-adhesive composition, wherein the sides of the film sections which contact the self-adhesive composition have been given an anti-adhesive finish.--

--34. A method for bonding an adhesive tape to a substrate and optionally thereafter releasing the adhesive tape from said substrate without leaving an adhesive residue on said substrate, said method comprising the following steps:

- a) applying an adhesive tape according to claim 24 to a substrate so as to form a bond between said adhesive tape and said substrate; and
- b) optionally releasing said bond by pulling on the adhesive tape.--

--35. The method according to claim 34, which further comprises bonding the adhesive tape to a hook, a baseplate or an article to be suspended from said substrate, wherein said bonding of the adhesive tape to said hook, baseplate or article is carried out either before or

after the adhesive tape is bonded to said substrate.— —

REMARKS

This application is a division of U.S. Serial No. 08/976,802, now allowed.

The original claims have been canceled in favor of new claims 12-35, which are based on the claims pending in the parent as a result of the preliminary amendment dated January 22, 2001. For the Examiner's information, the claim correspondence is as follows:

<u>New Claims:</u>	<u>Corresponds to Parent Claims:</u>
12	12
13-23	13-23
24	25
25-35	13-23

No new matter has been added. However, claims 22 and 34 are not written in Jepson format.

When the prosecution was terminated in the parent, claims corresponding to claims 12-24 here were rejected under 35 USC § 103(a) as being obvious over Bries et al. ("Bries"), WO 95/06691. Applicants respectfully request that the Examiner *not* repeat this rejection here.

Further, Applicants respectfully request that special consideration be given to claims 24-

35. In the Office Action dated March 21, 2001, the Examiner made the following observation with respect to then pending claim 25, to which present claim 24 corresponds:

“As to newly presented claim 25, the Examiner believes that the tearing relationship in ‘d’ of the claims appears to be either inherent in the reference teachings, or an obvious modification thereof.”

In response, Applicants submit that the Examiner has not carried his burden on either count. As held in *In re Robertson*, 49 USPQ2d 1949, 1950-51 (Fed. Cir. 1999), if the Examiner relies on a theory of inherency as to any particular element, then the extrinsic evidence must make clear that such element is *necessarily* present in the thing described in the reference, and the presence of such element therein would be so recognized by persons skilled in the art. Further, inherency is not established by probabilities or possibilities, and the mere fact that a property may result from a given circumstances is not sufficient; instead it must be shown that such property *necessarily* inheres in the thing described in the reference. *Id.* It certainly is not the case that the backings of Bries must *necessarily* satisfy the limitation “d” of present claim 24, and, consequently, that limitation cannot be inherent in Bries.

Further, the limitation “d” could not possibly be an obvious modification of Bries, as

Bries expressly teaches away from the use of backings which would tear under the force necessary to release the tape from the substrate. As can be taken from Bries at page 1, last line, and page 2, first line, the backing material and thickness is chosen so that the backing does not rupture before the tape is completely removed from the substrate. This same object is repeated at page 2, lines 12-13 and 25-26. Thus, in all of Bries embodiments, the backing thickness and material is chosen so that it must not rupture. This idea is repeated throughout Bries, for example, at page 5, lines 14-15, wherein it is taught that the polymeric film layer is used to increase “the load bearing strength and rupture strength of the tape.” See, also, the second paragraph on page 8, wherein it is taught that the backing thickness is important, and can vary somewhat, but must be selected so that “it possesses sufficient integrity” and exhibits “sufficient physical properties and [is] of a sufficient thickness to achieve that objective.”

A person having ordinary skill in the art, reading Bries objectively, is left with the clear impression that the backing thickness should be increased as needed to avoid backing rupture while the tape is being released from the substrate. As discussed in the instant specification at page 3, lines 25-28, this is a disadvantage, as it precludes the use of the thin-layer polymeric films, which are available on the market. Accordingly, the present invention solves this problem by attacking the problem of poor adhesion to rough and irregular surfaces (see the instant specification at page 2, lines 32-37) by proceeding in the exact opposite manner. Whereas the clear emphasis in Bries is on manipulating the backing thickness to provide good overall release

properties to the tape, the present invention proceeds by *manipulating the adhesive composition*. The result, as shown for instance in instant Example 1, is that the present invention permits the use of foam backings that would otherwise tear during the release process (Samples 3.001A and 3.006 in the last Table on page 14), but, by combining these backings with an adhesive composition of the requisite tear strength (Samples 3.009 and 3.010 in the last Table on page 14) it is possible to achieve removal of the tape from the substrate without tearing the backing. Moreover, because of the presence of the backing, the adhesion to rough and irregular surfaces is still achieved (see page 15, lines 15-18).

Claim 24 should be allowed because, while Bries clearly places the responsibility for tear resistance on the choice of backing material itself, claim 24 clearly places the responsibility for tear resistance on the self-adhesive composition. Thus, according to claim 24, the backing *would* tear under the conditions of removal if the self-adhesive composition were not present. The use of such “tearable” backings is not taught by Bries, nor would the use of such backings have been obvious to persons skilled in the art given Bries. In point of fact, as discussed above, Bries expressly teaches away from the use of such backings. Accordingly, the limitation “d” of claim 24 also should not have been obvious.

For the record, Applicants emphasize that although the claims were revised, and, therefore, might be argued to have been amended for a reason substantially related to

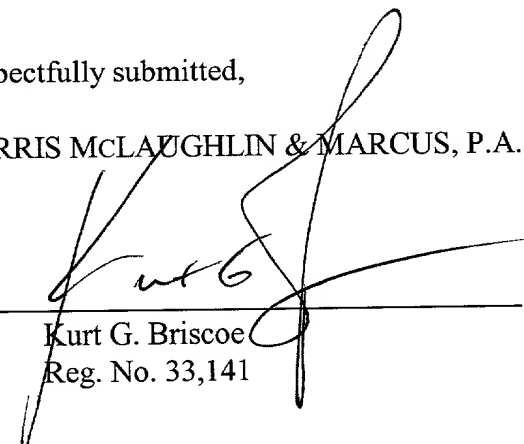
patentability, a fair reading of the amended claims will reveal that the departures from the previous claims were for clarification purposes only, and that Applicants did not narrow the claims in any material respect. Therefore, Applicants submit that the amended claims are entitled to the full range of equivalents.

Early and favorable action is earnestly solicited.

Respectfully submitted,

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